



ULTRASONIC
Cleaning machines

www.dcmultrasonic.com



Global Vision

At DCM ultrasonic we manufacture ultrasound equipment for the entire world. Our goal is to satisfy the needs of our clients. To achieve this, at **DCM Ultrasonic** we have a wide range of high-quality and performance equipment. In our R&D&I department we have developed our own patented digital and synchronized ultrasound generator, the result of more than **10 years of experience** in ultrasound generation. All our equipment is manufactured entirely in Spain in our facilities located in Valencia.





DCM

Ultrasonic



Design and Innovation
with own PATENTS



Manufacturing with
quality standards



Agility in delivery
times

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About DCM Ultrasonic

Our experience



DCM ultrasonic was born in 2022 as a result of more than 10 years of experience designing and manufacturing ultrasound equipment for third parties. In 2022 we made the decision to apply all our knowledge acquired during more than 10 years designing and manufacturing machines for one of the main manufacturers in the ultrasonic cleaning machines market, to offer the market our own product implemented in all those functionalities. that during all these years the users of this type of technology were demanding. As a result we have achieved a very competitive product line, offering high quality with exceptional performance.

Own manufacturing



At DCM we have our own workshop made up of technical professionals in each of the manufacturing areas. This allows us total control over manufacturing and ensure maximum quality since all processes are reviewed by our quality technicians.

Technical office



Our technical office is in charge of both the design and maintenance of all the ultrasound equipment in our catalog as well as the study of the needs of our clients and the development of customized equipment for them, from simple monocular equipment to fully automated and autonomous multi-cell equipment. .



R&D+I



The technical R&D team is responsible for the development of the technology behind the generation of ultrasound. Unlike most manufacturers, we have developed and patented our own synchronized digital ultrasound generator which gives us total control over what happens in the ultrasound bath. We can modify an infinite number of parameters that allow us to adapt our ultrasounds to the client's needs.

Turnkey projects



Because our commitment to the client is total, our projects are also total solutions, from putting an idea on paper to the manufacturing, commissioning and maintenance of the equipment so that the client does not have to worry about anything, investing their time and effort. in your company.



DCM ultrasonic equipment Advantages

Acoustic thermal insulation



Prevents heat losses during the operation of our equipment, maintaining the temperature, thus avoiding unnecessary heating and cooling cycles that directly lead to lower electricity consumption and economic savings.

PLC+HMI control system



The equipment has a PLC and an HMI color screen from where you can easily control the entire machine with a very intuitive menu. The equipment has an Ethernet communications port, thus allowing remote monitoring and management of the equipment.

Integral stainless steel construction



The equipment is built entirely in AISI 304L stainless steel, except for the ultrasonic emitters, which are made of AISI 316L stainless steel. The thickness of the tank and the ultrasonic emitters have been carefully selected to ensure a long useful life and obtain the best possible resonance. of the system, thus achieving a performance close to 98%, which means that all the electrical energy used to generate the ultrasounds is delivered mechanically to the tank, thus reducing energy losses in form of heat.

oil separation



Composed of a recirculation pump with a stainless steel body and an auxiliary tank that acts as a decanter. The pump has a Roten 3 type mechanical seal made of tungsten carbide and Viton seals, thus preventing premature breakage of the seal due to the use of aggressive detergents. oil separation Extends the useful life of the bathroom and prevents the pieces from getting dirty when removing them from the bathroom.

Double Welding System



All our tanks are completely welded on the perimeter, both inside and outside, thus ensuring a completely watertight joint at any point of the tank and doubling the safety against future leaks due to the continuous micro erosion produced by ultrasound in the tank, which translates into a tank life of more than 20 years.

Integrated electrical panel



The electrical panel is integrated inside the tank, making it very compact. The electrical panel is easily accessible from the outside through the front using removable guides, thus facilitating maintenance operations and allowing the tank to be installed very close to the walls.

Noise reduction system



Thanks to our noise reduction system, the sound pressure level is reduced to below 78db even at high frequencies such as 28kHz, allowing the use of the machine without the need for personal hearing protection equipment.

Daily ECO mode



The daily ECO mode allows you to save energy by keeping the machine at the desired temperature at night or on weekends, thus avoiding a drop in temperature and subsequent energy expenditure to once again reach the desired working temperature.

V-shaped vat bottom



All tanks have a V-shaped tank bottom that facilitates cleaning of the tank and prevents the accumulation of sludge at the bottom that causes premature deterioration of the tank.

Electrical resistances on the sides



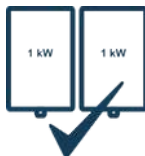
The electrical resistances are located on the side of the tank at a sufficient height to prevent the sludge that accumulates at the bottom from coming into contact with them, thus preventing their deterioration, increasing their useful life and performance.

Integrated light beacon



All our equipment has a configurable and integrated light beacon, making it easier for the user to know the status of the machine from a distance with a simple glance. We can quickly identify the states of ready, attention, worked or emergency through their color code.

Modular transmitters



Our equipment has a modular system of ultrasonic emitters, so that unlike other manufacturers, if a module breaks, the machine continues to maintain its functionality until said module is replaced.

Own technical service



At DCM ultrasonic we have our own technical service, capable of resolving any incident with a response time of maximum 48 hours. Thanks to our technical service, our clients' production chain is minimally affected by a breakdown. We have any spare part for our equipment in permanent stock.

Heavy Duty design



Our largest capacity tanks are specially built for Heavy Duty industrial use, being the tanks with the highest load capacity on the market, satisfying the extreme needs of our customers.

Adaptive frequency



Our synchronized digital generators can work at different frequencies such as 24kHz, 25kHz, 28kHz, 33kHz, 38kHz and 40kHz as standard and higher frequencies at the request of our customers, this allows you to select the most optimal frequency according to your application, High power for cleaning and degreasing (24kHz to 28kHz) and low power for disinfection applications (33kHz to 40kHz).

100% Spanish design and manufacturing



All DCM ultrasonic equipment is designed and manufactured entirely in Spain in our facilities, which allows us exhaustive control of the manufacturing process and thus achieve our commitment to total quality. All equipment is tested in our facilities for a minimum of 48 hours uninterrupted, during which the final quality checks are carried out.

Custom design



At DCM ultrasonic, we are experts in the manufacture of special turnkey equipment and applications for our clients, so if our standard equipment does not adapt to the needs of our client or a special application is necessary, our technical team is in charge of developing the process, from the conceptual design of the system to its implementation and subsequent maintenance.

Compact size



Our designs are characterized by having a compact size that allows our clients to install the equipment in small cornered areas. Maintenance access from the front and a single side allows the installation of the equipment in corners and very close to the walls, thus minimally invading the space in our clients' facilities.

Own PATENTED Digital Generator (ES 1 304 918 U)



Thanks to our experience in ultrasound generation, we have developed our own digital and synchronized generator entirely designed and built in Spain. Since we have total control over the ultrasound generation, this allows us to have a good understanding of the cavitation phenomena that occur in the bath and even modify the waveform to adapt to the special needs of our clients.

(19)



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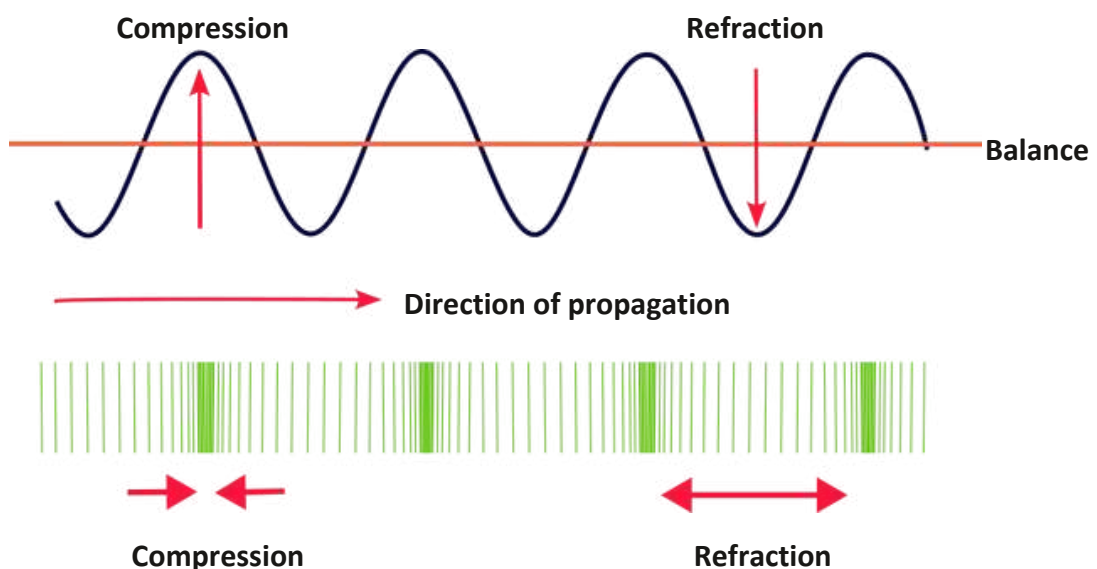
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How ultrasonic cleaning works

Surface cleaning is probably one of the most successful applications of high-power ultrasound. The technique is simple, submerge the object to be cleaned in a vat filled with a cleaning solution and expose it to an intense ultrasonic field. The basic cleaning system consists of, at least, a tank containing the cleaning solution, which in turn acts as a means to transport the ultrasonic energy, equipped with one or more ultrasonic transducers that are powered by a generator. Based on this basic model, there are more complex installations that incorporate conveyors, mechanical pre-washing, devices for filtering the used cleaning liquid and for drying the cleaned parts, etc. In any cleaning process in a liquid medium, a mechanical force is required that facilitates, after partial dissolution in the fluid, the complete removal of dirt. In conventional cleaning this force is produced by friction, both internally and externally, either treating contaminated surfaces with brushes or applying jets with cleaning solution. These techniques involve applying new cleaning solution in each process and removing the cleaning fluid. Which is saturated with contaminants, after each wash. In ultrasonic cleaning, the cavitation phenomenon carries out both the application of mechanical forces on the surface clean as the agitation of the cleaning fluid.

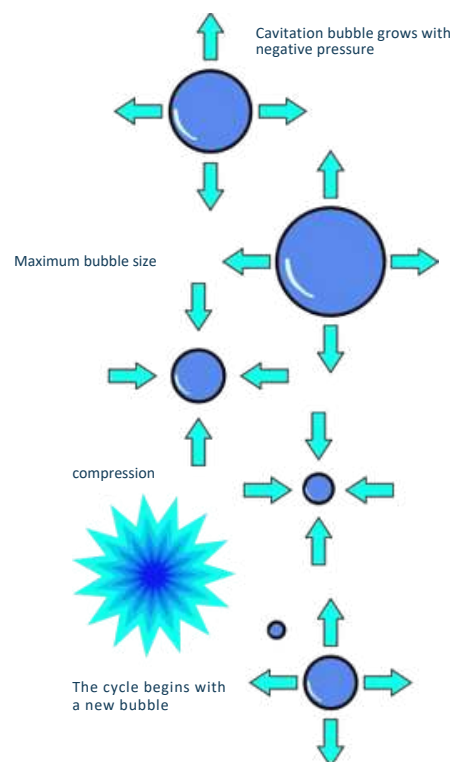
Cavitation.

Let us imagine that the green lines represent a spring. In the Figure below the green lines represent the individual molecules of the medium through which a sound wave is transmitted. The molecules of the medium are influenced by adjacent molecules just like the green lines. When a sound wave propagates the compression generated by the source travels through the coil because each adjacent coil pushes the next. It should be noted that although the wave travels from one end of the spring to the other, the relative position of the coils does not change, moving as the wave passes and returning to its original position afterwards. Each coil therefore goes from being the first in the compression, when it is pushed toward the next, to becoming part of the rarefaction as the wave moves away from the adjacent coil.



In the same way, any point in the medium through which an acoustic wave propagates is alternately subjected to compression and rarefaction. When under compression the pressure in the medium is positive, while during rarefaction the pressure is negative. In elastic media, such as air and most solids, when a sound wave propagates the perturbation of its molecules occurs continuously, returning to its equilibrium position when the sound ceases. In non-elastic media, such as water and most liquids, propagation occurs continuously as long as the intensity (amplitude) of the sound is relatively low. As the amplitude increases the magnitude of the negative pressure in the areas of rarefaction can be sufficient to cause Bubble collapses in the “rupture” of the liquid causing the phenomenon known as cavitation. As a consequence of these fissures in the medium, in the zones of rarefaction, the well-known cavitation bubbles are generated. When the wave fronts are displaced the bubbles oscillate, under the influence of positive pressure, growing to an unstable size.

Finally, a violent collapse of the bubbles occurs and they eventually implode causing shock waves that are radiated from the areas where the implosion occurs. It has been calculated that, in the areas where implosion occurs, temperatures of more than 10,000°F are reached and pressures exceed 10 KPa.



Advantages

Cleaning, in most cases, aims at the dissolution of the contaminant in the surface to be treated (in the case of soluble residues) or the displacement of the contaminant (in the case of insoluble residues) or even, in some cases, both dissolution and displacement (when the insoluble dirt particles are covered by a soluble layer). The mechanical effect of ultrasonic energy facilitates both processes, accelerating the dissolution and displacement of the particles. In addition to the cleaning process, ultrasonic energy is also useful in the rinsing process to completely remove chemical residues generated in the cleaning process.

In the removal of contaminants by dissolution, the solvent comes into contact with the contaminant and dissolves it, so the cleaning process is carried out solely by the solvent. cleaning process takes place only at the interface between the cleaning solution and the contaminant (Fig. 1). As the contaminant dissolves, a saturation layer is created between the interface of the cleaning solution and the contaminant, making it impossible to clean the contaminant making it impossible for the “useful” cleaning fluid to reach the contaminant, at which point the cleaning action stops as the cleaning solution is cleaning action stops because the saturated layer prevents the contaminant from being attacked. (Fig. 2)

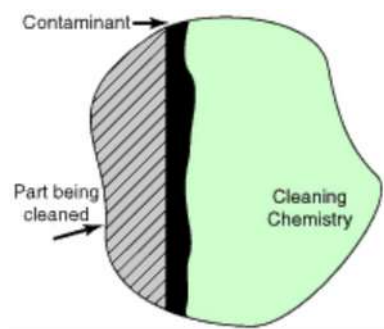


Fig.1

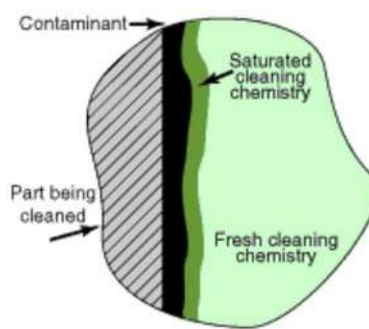


Fig.2

In some cases contaminants are composed of insoluble particles strongly bound by cohesive forces. In these cases the particles must be sufficiently displaced in order to break the attractive forces that hold them tightly together (Fig. 3).

The cavitation and implosion generated as a result of the ultrasonic activity displace and remove contaminants such as dust from the superficies. Effective cleaning requires that the coupling medium is capable of wetting the particles to be removed (Fig. 5).

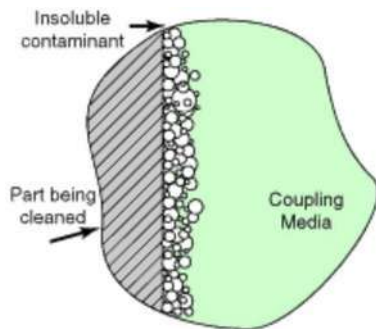


Fig.3

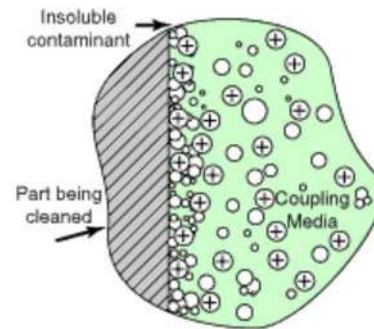


Fig.4

Cleaning liquids. A necessary prerequisite for efficient cleaning is strong cavitation. To obtain it inside the cleaning tank the liquid to be used should not contain too much dissolved gas, as it could penetrate the cavitation bubbles and prevent them from collapsing quickly. One way to decrease the amount of gas is to heat the liquid as the solubility of the liquid decreases with increasing temperature. The choice of the type of cleaning liquid will depend primarily on the type of contaminant to be treated and the material to be treated since any chemical aggression must be avoided. A distinction is mainly made between aqueous and organic fluids. Aqueous ones are useful if the wetted objects are to be further processed, e.g. in electroplating. In addition, the electrical conductivity of the detergent is often an advantage as it prevents the electrostatic charge of insoluble dirt particles and thus ends the electrical attraction between them and the treated surface. On the other hand, organic fluids have the advantage the treated areas can be dried more quickly after the cleaning process. Both fluids can be reused after filtration, only the organic fluids can be further regenerated by distillation.



DL SERIES - CLEANING EQUIPMENT

The range of cleaning equipment of the DL series (Dynamic Loading) goes from 100 to 12000 liters of capacity. They are designed for cleaning, degreasing, pickling, disinfection and descaling of all types of materials. They are all equipped with a pneumatic lifting system up to 1500 kg and hydraulic from 1500 kg and above. In addition, all our equipment can double this load in static mode when the basket rests on the bottom of the tank. From 1000L inclusive, all the equipment is equipped with automatic lid opening and closing. For smaller capacities, it is possible to install an optional automatic lid. All DL series can be optionally equipped with: automatic lid, steam extraction, automatic water filling, automatic detergent dosing (liquid), filtration unit that extends the life of the bath, automatic oil extraction, manufacture of tank and parts in contact with the chemical product in stainless steel AISI 316.

Noise reduction system

Worktop equipped with noise reduction system up to 78db at 28kHz.

Integrated light beacon

Luminous beacon indicating machine status.

Overflow

Overflow to avoid overflows in the tank when large pieces are introduced. 3/4" valve

Auxiliary tank drain

Located at the bottom of the auxiliary tank, it is used to empty it easily. 3/4" valve

Oil extraction

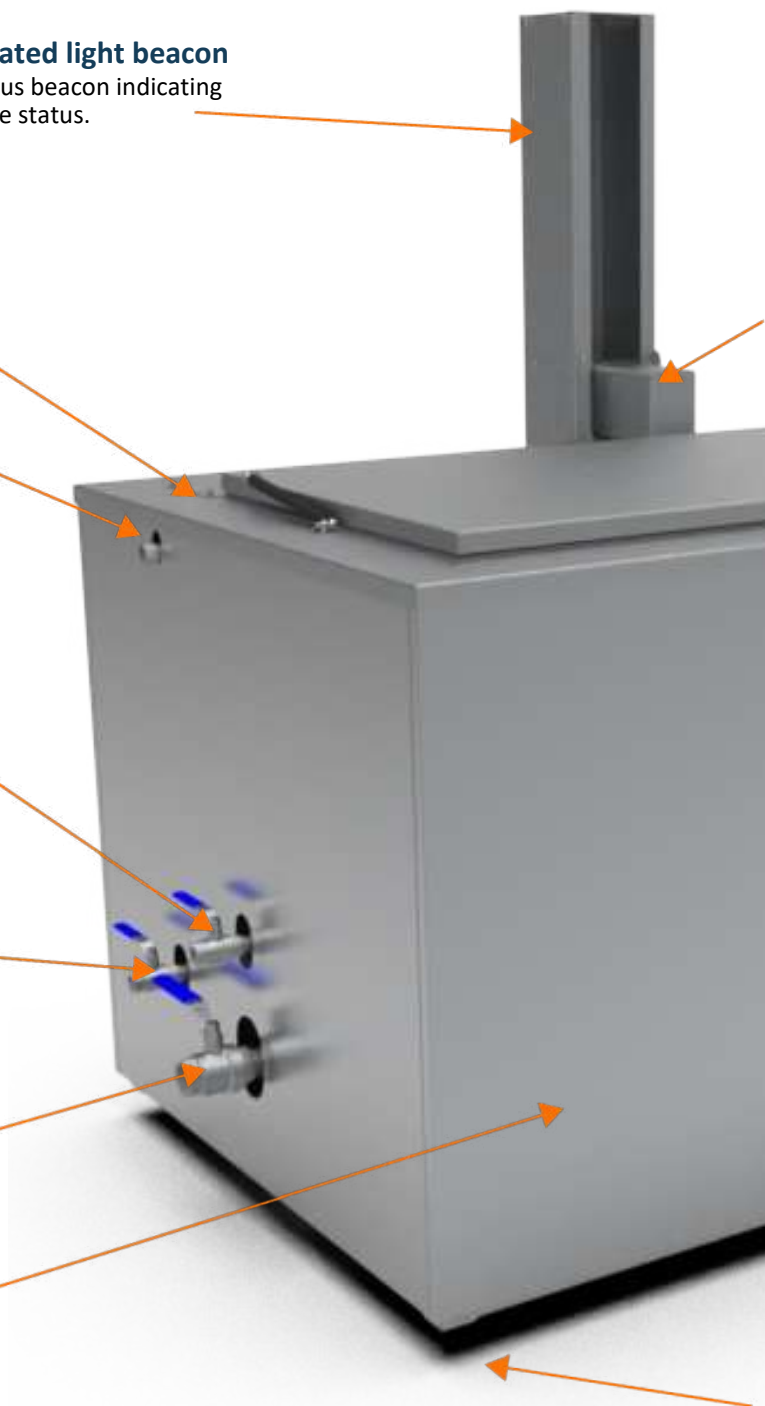
It is used for the extraction of the superficial layer of oil from the auxiliary tank after its separation. 3/4" valve

Main drain

Located at the bottom of the main tank, it is used to empty the main tank. Valve 1" 1/2.

INOX 304 panels

Stainless steel AISI 304 satin-finished panels.





DWS



Pneumatic lift up to 1500Kg

Pneumatic lift up to 1500kg, 3000Kg static.
From 1500kg the system is hydraulic.

Manual / automatic heated lid

Manual lid, heat-insulated, maintains the temperature and reduces noise emissions. Automatic as standard from 1000L. Optional on all other models.

HMI 7" Color IP67

7" color HMI touch screen with intuitive interface and integrated help. Available in the customer's language.

IP67 bracelet

IP67 bracelet prepared to be able to clean the surface of the machine easily and without risk of short circuits.

Integrated electrical panel

Removable integrated electrical panel that facilitates maintenance and reduces the free space to be left between the tank and the wall.

Adjustable feet

Non-slip feet adjustable in height. They allow an easy leveling of the machine.



Technical Characteristics

UCM 100DL

Ultrasonic power (W)	1000
Heating power (W)	3750
Tank capacity (liters)	100
Inside dimensions LxWxH (mm)	600 x 395 x 465
Useful dimensions LxWxH (mm)	570 x 325 x 400
External dimensions LxWxH (mm)	1150 x 745 x 1500
Maximum dynamic load (kg)	60
Maximum static load (kg)	125



UCM 200DL

Ultrasonic power (W)	2000
Heating power (W)	7500
Tank capacity (liters)	230
Inside dimensions LxWxH (mm)	675 x 600 x 575
Useful dimensions LxWxH (mm)	655 x 530 x 475
External dimensions LxWxH (mm)	1250 x 950 x 1675
Maximum dynamic load (kg)	80
Maximum static load (kg)	175



UCM 350DL

Ultrasonic power (W)	3000
Heating power (W)	7500
Tank capacity (liters)	400
Inside dimensions LxWxH (mm)	1010 x 660 x 600
Useful dimensions LxWxH (mm)	980 x 510 x 500
External dimensions LxWxH (mm)	1610 x 1060 x 1700
Maximum dynamic load (kg)	275
Maximum static load (kg)	550



UCM 500DL

Ultrasonic power (W)	4000
Heating power (W)	11.250
Tank capacity (liters)	546
Inside dimensions LxWxH (mm)	1400 x 600 x 650
Useful dimensions LxWxH (mm)	1350 x 500 x 475
External dimensions LxWxH (mm)	1930 x 1043 x 1760
Maximum dynamic load (kg)	525
Maximum static load (kg)	1050



UCM 750DL

Ultrasonic power (W)	6000
Heating power (W)	11000
Tank capacity (liters)	790
Inside dimensions LxWxH (mm)	1370 x 800 x 720
Useful dimensions LxWxH (mm)	1317 x 650 x 600
External dimensions LxWxH (mm)	1955 x 1240 x 1910
Maximum dynamic load (kg)	525
Maximum static load (kg)	1050



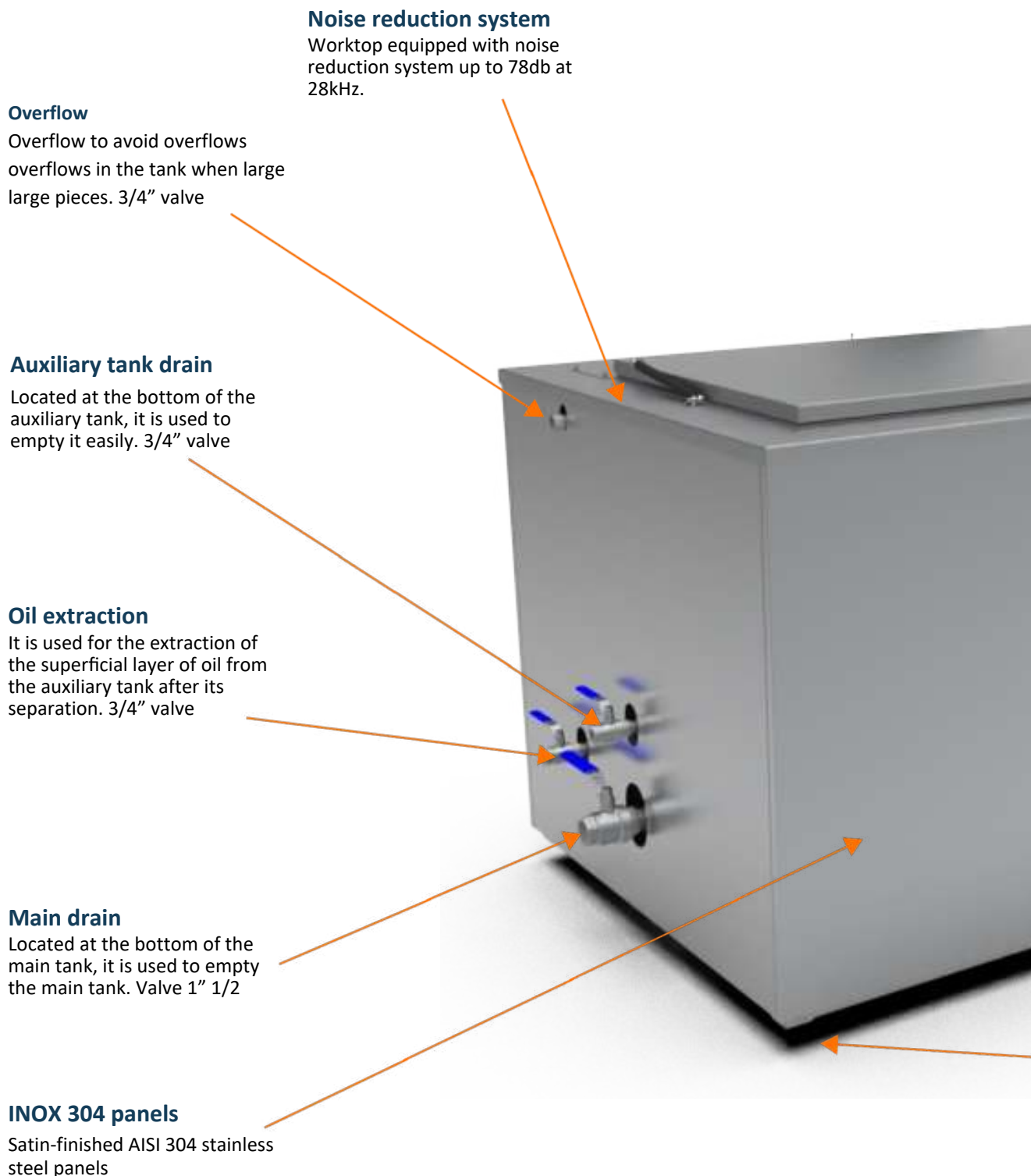
UCM 1000DL

Ultrasonic power (W)	8000
Heating power (W)	15000
Tank capacity (liters)	1215
Inside dimensions LxWxH (mm)	1700 x 1100 x 650
Useful dimensions LxWxH (mm)	1560 x 1000 x 570
External dimensions LxWxH (mm)	2135 x 1365 x 2200
Maximum dynamic load (kg)	825
Maximum static load (kg)	1650



SL SERIES - CLEANING EQUIPMENT

The SL (Static Loading) series of cleaning equipment ranges from 100 to 12000 liters capacity. They are designed for cleaning, degreasing, pickling, disinfection and descaling of all types of materials. All are equipped with a removable static platform at the bottom of the tank designed and built to withstand the maximum static load indicated in its characteristics table. From 1000L and above, all the equipments have automatic lid opening and closing. For smaller capacity equipment, it is possible to install an automatic lid as an option. All SL series can be optionally equipped with: automatic lid, steam extraction, automatic water filling, automatic detergent dosing (liquid), filtration unit that extends the life of the bath, automatic oil extraction, manufacture of tank and parts in contact with the chemical product in stainless steel AISI 316.





DWS

Manual / automatic heated lid

Manual lid, heat-insulated, maintains the temperature and reduces noise emissions. Automatic as standard from 1000L. Optional on all other models.

HMI 7" Color IP67

7" color HMI touch screen with intuitive interface and integrated help. Available in the customer's language.

IP67 bracelet

IP67 Pulsatería prepared to clean the surface of the machine easily and without risk of short circuits.

Integrated electrical panel

Removable integrated electrical panel that facilitates maintenance and reduces the free space to be left between the tank and the wall.

Adjustable feet

Non-slip feet adjustable in height. They allow an easy leveling of the machine.



Technical Characteristics

UCM 100SL

Ultrasonic power (W)	1000
Heating power (W)	3750
Tank capacity (liters)	100
Inside dimensions LxWxH (mm)	675 x 600 x 575
Useful dimensions LxWxH (mm)	570 x 365 x 435
External dimensions LxWxH (mm)	1150 x 745 x 925
Maximum static load (kg)	125



UCM 200SL

Ultrasonic power (W)	2000
Heating power (W)	7500
Tank capacity (liters)	211
Inside dimensions LxWxH (mm)	700 x 550 x 550
Useful dimensions LxWxH (mm)	670 x 365 x 475
External dimensions LxWxH (mm)	1250 x 950 x 1100
Maximum static load (kg)	175



UCM 350SL

Ultrasonic power (W)	3000
Heating power (W)	7500
Tank capacity (liters)	400
Inside dimensions LxWxH (mm)	1010 x 660 x 600
Useful dimensions LxWxH (mm)	980 x 510 x 500
External dimensions LxWxH (mm)	1610 x 1060 x 1125
Maximum static load (kg)	550



UCM 500SL

Ultrasonic power (W)	4000
Heating power (W)	11250
Tank capacity (liters)	546
Inside dimensions LxWxH (mm)	1400 x 600 x 650
Useful dimensions LxWxH (mm)	1360 x 680 x 550
External dimensions LxWxH (mm)	1930 x 910 x 1200
Maximum static load (kg)	1050



UCM 750SL

Ultrasonic power (W)	6000
Heating power (W)	11000
Tank capacity (liters)	790
Inside dimensions LxWxH (mm)	1370 x 800 x 720
Useful dimensions LxWxH (mm)	1320 x 750 x 620
External dimensions LxWxH (mm)	1955 x 1100 x 1225
Maximum static load (kg)	1050



UCM 1000SL

Ultrasonic power (W)	8000
Heating power (W)	15000
Tank capacity (liters)	1120
Inside dimensions LxWxH (mm)	1550 x 850 x 850
Useful dimensions LxWxH (mm)	1500 x 800 x 750
External dimensions LxWxH (mm)	2135 x 1365 x 1300
Maximum static load (kg)	1650



RL SERIES - ULTRASONIC CLEANING

The RL series range of cleaning equipment is specially designed for the cleaning of parts that require a continuous rotary movement for an efficient cleaning. Within this series, we can find automatic multi-stage machines for mass production with working capacity of up to 5 baskets simultaneously and machines specifically designed for cleaning ANILOX rollers with capacity for rollers up to 500kg weight and simultaneous rotation and vertical movement that allow both traditional surface cleaning and cleaning of the submerged rollers, always in combination with the rotation movement to obtain a totally homogeneous cleaning.

Noise reduction system

Worktop equipped with noise reduction system up to 78db at 28kHz.

Pneumatic lifter up to 500Kg

Pneumatic elevator up to 500kg, allows cleaning the rollers in any position.

Integrated light beacon

Luminous beacon indicating the status of the machine.

Auxiliary tank drain

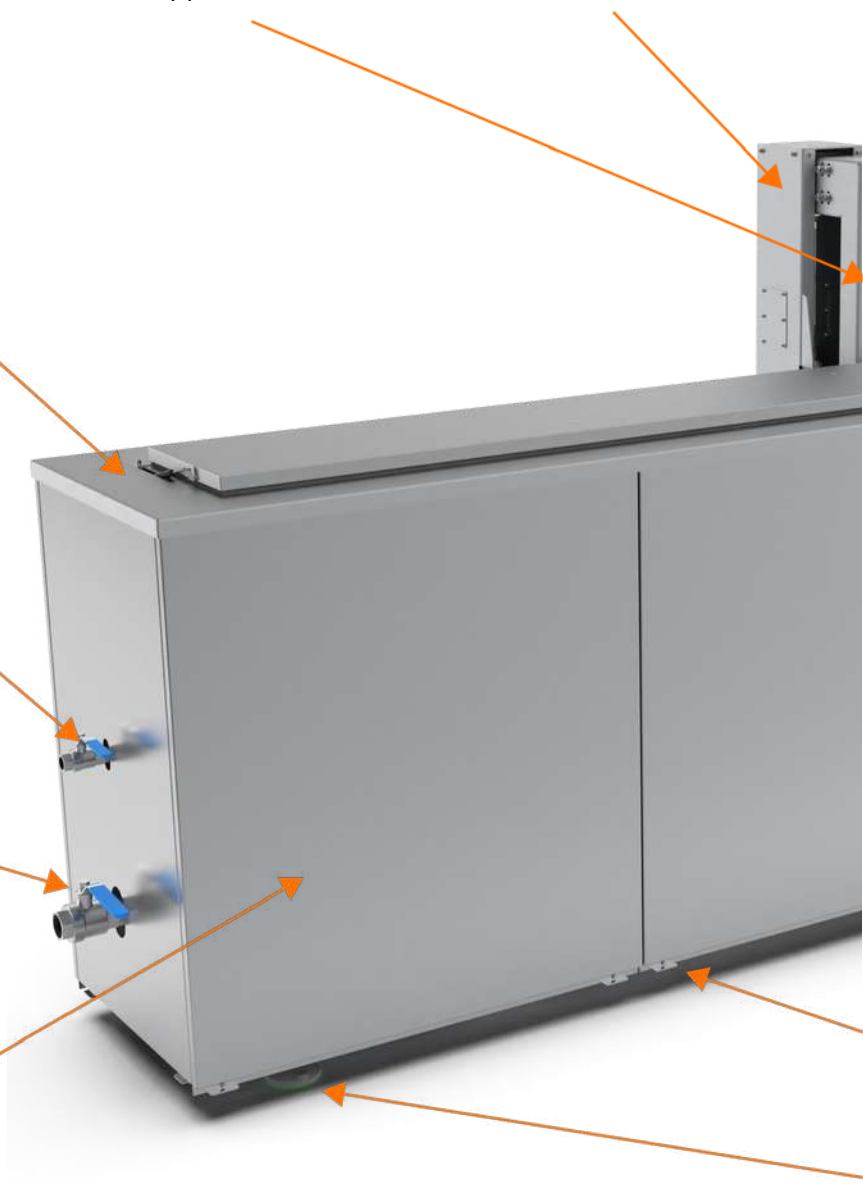
Located at the bottom of the auxiliary tank, it is used to empty it easily. 3/4" valve

Main drain

Located at the bottom of the main tank, it is used to empty the main tank. Valve 1" 1/2

INOX 304 panels

Stainless steel AISI304 satin-finished panels.





DWS

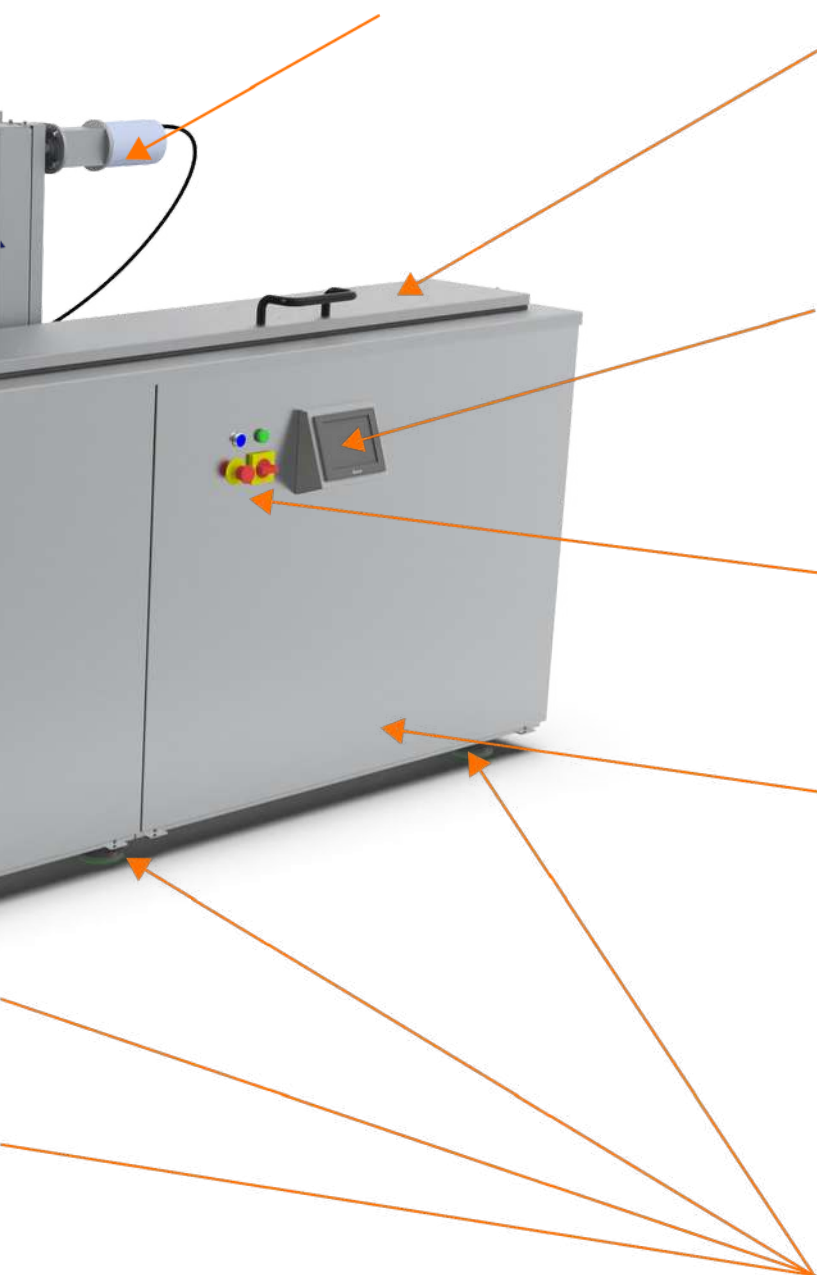


Rotation system

Cylinder rotation system in combination with the lifting system. Both systems can be operated simultaneously.

Manual / automatic heated cover

Manual lid, heat-insulated, maintains the temperature and reduces noise emissions. Optionally, an automatic lid can be installed.



HMI 7" Color IP67

7" color HMI touch screen with intuitive interface and integrated help. Available in the customer's language.

IP67 bracelet

IP67 bracelet prepared to be able to clean the surface of the machine easily and without risk of short circuits.

Integrated electrical panel

Removable integrated electrical panel that facilitates maintenance and reduces the free space to be left between the tank and the wall.

Adjustable feet

Non-slip feet adjustable in height. They allow an easy leveling of the machine.

Steam extraction

Connected to the customer's installation, it extracts the vapors from the tank, preventing them from being dissipated by the installations.

Rotating basket guidance

Vertical guiding system of the rotating basket up to the rotation mechanism.

Auxiliary tank drain

Located at the bottom of the auxiliary tank, it is used to empty it easily. 3/4" valve

Main drain

Located at the bottom of the main tank, it is used to empty the main tank. Valve 1" 1/2

INOX 304 panels

Satin-finished AISI 304 stainless steel panels

Unloading station

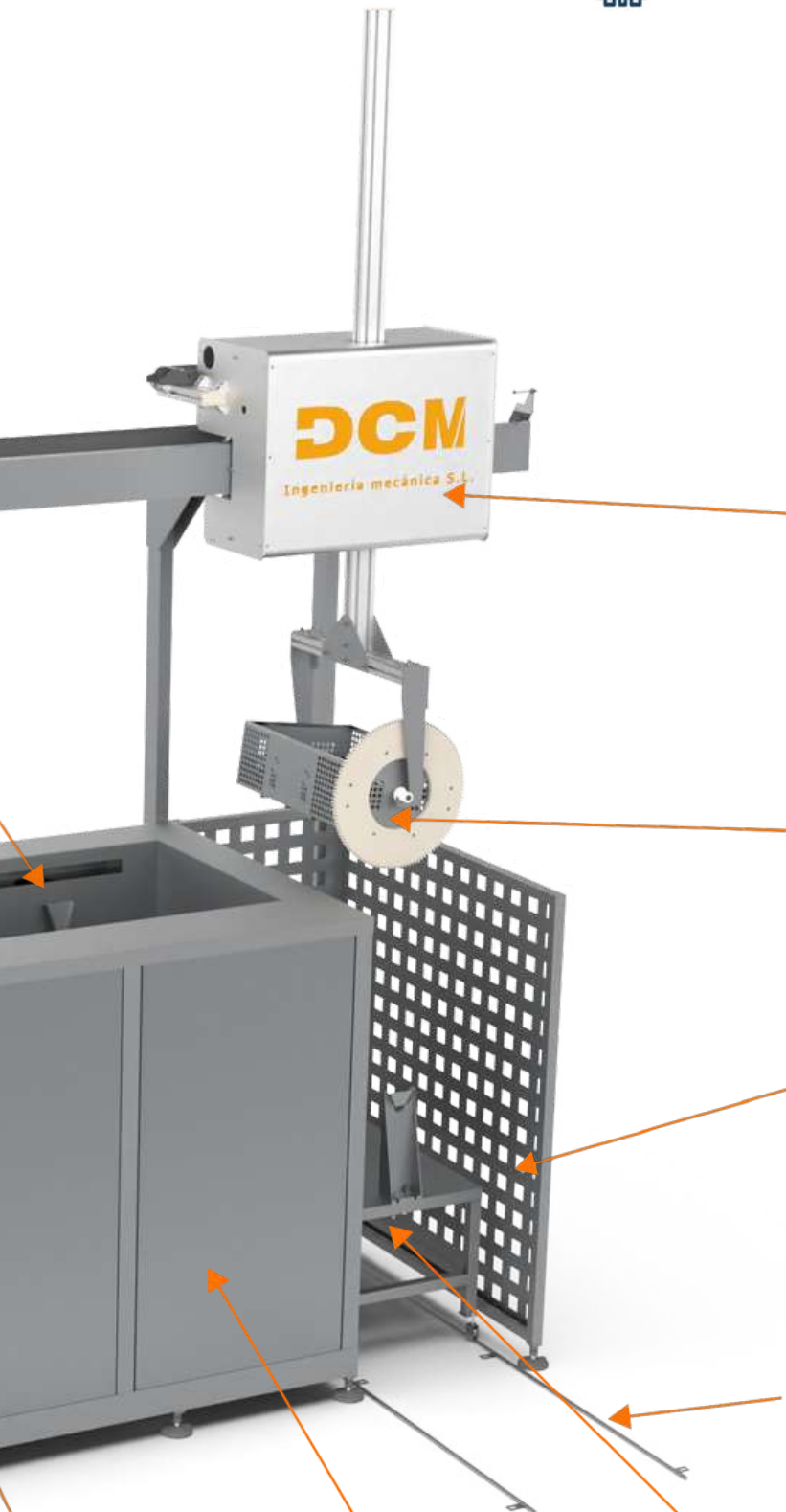
Parts unloading station with removable trolley for easy unloading.

Drying tank

Drying tank. Drying tank equipped with recirculated hot air drying system.



DWS



Robot X Y Z maximum load 100 KG

Robot with movement in three axes X,Y,Z for loading and unloading of the different workstations in a fully automatic way. Maximum load 100kg.

Rotating baskets

Equipped with 5 rotating baskets working in continuous cycle.

Light curtain fenders

Anti-intrusion defense system equipped with physical barrier and photo sensors that stop the machine immediately in the presence of any body.

Carriage extraction guides

Removable trolley guide system. Facilitates the loading of the basket and keeps it in its working position.

Rinsing stage

Rinsing tank for the elimination of chemical residues before drying.

Ultrasonic tank

Ultrasonic cleaning tank.

Loading station

Parts loading station with removable trolley for easy loading.

Technical Characteristics

UCM 500RL

Ultrasonic power (W)	4000
Heating power (W)	12000
Tank capacity (liters)	510
Inside dimensions LxWxH (mm)	2548 x 400 x 500
Useful dimensions LxWxH (mm)	Rodillo L2400 x Ø215
External dimensions LxWxH (mm)	3080 x 790 x 1600
Maximum dynamic load (kg)	500
Maximum static load (kg)	500



UCM 700RL

Ultrasonic power (W)	6000
Heating power (W)	11000
Tank capacity (liters)	764
Inside dimensions LxWxH (mm)	2548 x 600 x 500
Useful dimensions LxWxH (mm)	Rodillo L2400 x Ø250
External dimensions LxWxH (mm)	3080 x 990 x 1600
Maximum dynamic load (kg)	500
Maximum static load (kg)	500



5S UCM 250RL

Ultrasonic power (W)	2000
Heating power (W)	7500
Tank capacity (liters)	250
Inside dimensions LxWxH (mm)	826 x 732 x 456
Useful dimensions LxWxH (mm)	A medida
External dimensions LxWxH (mm)	4800 x 1404 x 4300
Maximum dynamic load (kg)	100
Maximum static load (kg)	100



RL SERIES - ULTRASONIC CLEANING

The LAB series range of cleaning equipment is specially designed for the cleaning of delicate parts where deep cleaning is required without damaging the components to be cleaned. Its main use is intended for the medical sector, jewelry, electronics, optics... They are entirely manufactured in stainless steel AISI 304 for models up to 30 liters and from 30 to 75 liters can be manufactured in stainless steel AISI 316.

All models are equipped with synchronized ultrasonic system, heating and timer for a simple and intuitive use. Models from 6 to 30 liters are specially designed to work on a laboratory bench or benchtop.



Ultrasonic tanks of 28kHz and 40kHz with capacities of 10 liters and 30 liters. The tanks have built-in electric heating system between 200W and 500W depending on model, and ultrasonic power between 200W and 400W. All tanks come with 3/8" drain.



Ultrasonic tanks of 28kHz and 40kHz with capacity from 30 liters to 75 liters. The tanks have a built-in electric heating system of between 1500W and 2250W depending on the model and an ultrasonic power of 1000W. All tanks come with 1/2" drain.

Technical Characteristics

UCM 10SL

Ultrasonic power (W)	300
Heating power (W)	200
Tank capacity (liters)	10.8
Inside dimensions LxWxH	300 x 180 x 200
Maximum load (kg)	15



UCM 15SL

Ultrasonic power (W)	500
Heating power (W)	300
Tank capacity (liters)	15
Inside dimensions LxWxH	330 x 350 x 280
Maximum load (kg)	25



UCM 30SL

Ultrasonic power (W)	1000
Heating power (W)	500
Tank capacity (liters)	30
Inside dimensions LxWxH	500 x 300 x 250
Maximum load (kg)	35



UCM 50SL

Ultrasonic power (W)	1000
Heating power (W)	1500
Tank capacity (liters)	50
Inside dimensions LxWxH	450 x 400 x 280
Maximum load (kg)	50



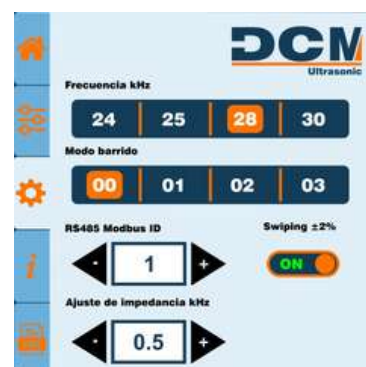
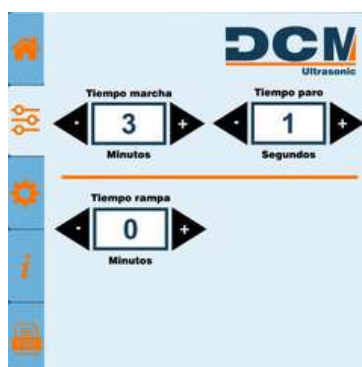
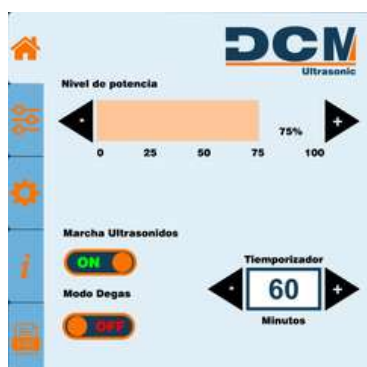
UCM 75SL

Ultrasonic power (W)	1000
Heating power (W)	2250
Tank capacity (liters)	75
Inside dimensions LxWxH	580 x 350 x 400
Maximum load (kg)	75



Ultrasonic generators

In DCM ultrasonic we have developed our own synchronized digital generator with working frequency from 24kHz to 40kHz allowing to select the best frequency depending on the application. Our generator is the result of more than 10 years of experience in ultrasonic cleaning seeing day by day the needs of our customers. We have a wide range of generators from 1000W to 300.000W. We are one of the few manufacturers of ultrasonic machines that have their **own patented generator**.



We can manufacture submersibles of any size according to customer needs, the powers are between 500W and 3000W and frequencies of 24kHz, 25kHz, 28kHz, 33kHz, 38kHz and 40kHz. For other frequencies please consult with the us.

Heat exchangers

Ultrasonic cleaning of heat exchangers and other components in the petrochemical industry.

Ultrasonic cleaning is a highly effective and efficient tool for cleaning heat exchangers and other components in refineries and other petrochemical companies. It is performed by immersion in a bath applying the physical principle of thermosonication together with certain detergents to clean dirt and oxides.

Heat exchangers.

The heat exchanger cleaning process is a manual process that consumes a lot of human, energy and water resources.

This process is carried out with high pressure washing equipment, using very high quantities of water. The ultrasonic cleaning process reduces the labor, water and energy used, increasing the productivity of the process, achieving much less downtime for maintenance.

Before vs after

using our cleaning machines

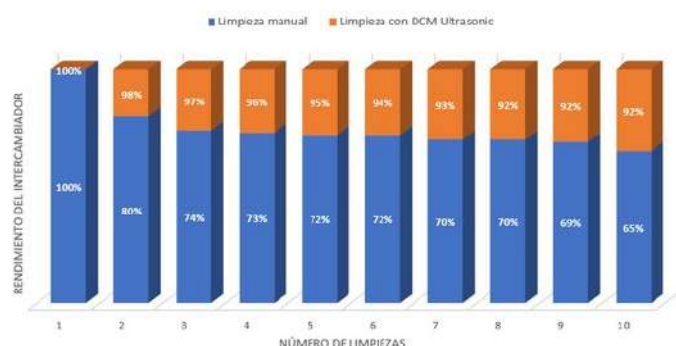
Dirty exchanger



Clean exchanger



RENDIMIENTO DE UN INTERCAMBIADOR CON LIMPIEZA MANUAL VS DCM ULTRASONIC



UCM 60000SL Our model of machine with capacity for 60 thousand liters. One of the largest models in the market. Ideal for outdoor use.



Image gallery



Interior. DCM lifting platform.



Luminous beacon - DCM Ultrasonic.



Display of a DCM machine.



UCM 350DL machine ready to go out to domestic customer.



Machine family of the RL series.

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